

COPY

REMARKS

This is in response to the Official Action currently outstanding with respect to the above-identified application, which Official Action the Examiner has designated as being FINAL.

Claims 1-49 were present in this application as of the time of the issuance of the currently outstanding FINAL Official Action. Claims 1-49 currently stand rejected by the Examiner. By the foregoing Amendment, Applicants propose that Claims 1, 13-14 and 24 be amended. No claims are proposed to be added, canceled or withdrawn. Accordingly, in the event that the Examiner grants the entry of the foregoing Amendment, Claims 1-49 as hereinabove amended will constitute the claims under active prosecution in this application.

The foregoing Amendment sets forth the wording of all of the claims currently pending in this application as it will stand in the event that the Examiner grants the entry of this Amendment including indications of the changes made and the status of each claim as required by the Rules.

More specifically, it is noted that in the currently outstanding Official Action, the Examiner has:

1. Acknowledged Applicants' claim for foreign priority under 35 USC §119(a)-(d), and confirmed that the required certified copies of the priority document have been received by the United States Patent and Trademark Office.
2. Acknowledged of Applicants' previous amendment as filed on 27 January 2005.
3. Indicated that the drawings filed on 8 August 2001 have been accepted.
4. Provided Applicants with a Notice of References Cited (Form PTO-892);

COPY

5. Confirmed the receipt and consideration of Applicants' Information Disclosure Statement of 28 June 2005 by providing Applicants with a copy of the Form PTO-1449 that accompanied that Information Disclosure Statement duly signed, dated and initialed by the Examiner in confirmation of his consideration of the art listed therein – **Similar confirmation of Applicants' Information Disclosure Statement filed on 30 November 2005 in response to this communication is respectfully requested.**
6. Inquired as to whether or not the inventions of all of the claims of this application were commonly owned at the time(s) that they were made – **Applicants respectfully confirm that the inventions of all of the claims of this application were commonly owned at the time(s) that they were made.**
7. Finally rejected Claims 1-34, 38, 42 and 46 under 35 USC §103(a) as being unpatentable over Fujiwara et al. (US 6,052,103 A), hereinafter "Fujiwara", in view of Tasdighi et al. (US 5,734,291 A), hereinafter "Tasdighi".
8. Finally rejected claims 35, 39, 43 and 47 under 35 USC §103(a) as being unpatentable over Fujiwara and Tasdighi as applied to claims 1, 34, 13, 38, 14, 42, 24 and 46 in view of Takahashi (US Patent No. 5,510,961A).
9. Finally rejected claims 36-37, 40-41, 44-45, and 48-49 under 35 USC §103(a) as being unpatentable over Fujiwara, Tasdighi and Takahashi as applied to claims 1, 34-35, 13, 38-39, 14, 42-43, 24, and 46-47 above and further in view of Kawai et al. (US Patent No 6,259,494 B1).
10. Provided Applicants with his Response to their Previous Arguments.

COPY

Further comment in these Remarks regarding items 1-6 above is not considered to be necessary in these Remarks.

With respect to items 8 – 10, Applicants thank the Examiner for the courtesy accorded to their undersigned representative during a series of telephone interviews that took place during the last week of December 2005 and the first week of January 2006. As the Examiner's Interview Summary correctly indicates, during the course of those interviews the fundamental differences between the present invention and the disclosure of the Fujiwara et al reference were explained by Applicants' undersigned representative and acknowledged by the Examiner. The Examiner, however, maintained the propriety of his then outstanding rejections over Applicants' undersigned representative's assertion that the Examiner's interpretation of the terms "scanning mode" and "hold mode" was contrary to the clear meaning of those terms when interpreted in light of the present specification. It is Applicants understanding the Examiner based this position on his belief that there is no clear definition of the terms in question in the specification of the present application and that accordingly the claims of this application as then phrased literally were met by the Fujiwara reference.

Agreement, however, was reached between the Examiner and Applicants' undersigned representative to the effect that if claims 1, 13-14 and 24 were amended as proposed above, this application would be in condition for allowance in view of the agreed upon fundamental differences between the present invention and the Fujiwara reference as well as the clarification provided by the above-proposed Amendment that claims the active matrix display (as opposed to a single gate line) is vertically scanned during the scanning mode. In other words, the fundamental differences between the present invention and the Fujiwara reference combined with the emphasis of the present invention upon a vertical scan of the display versus the emphasis of Fujiwara on a vertical scan of a single gate line as clarified by the foregoing Amendment together were deemed to be sufficient by the Examiner to support the patentability of the claims as hereinabove amended.

COPY

A brief summary of the fundamental differences between the present invention and the Fujiwara reference is set forth below.

The wording of the present claims cannot be applied to the cited art on the basis that the "scanning mode" and the "hold mode" claimed correspond to the writing portion (T_w , V_{gon}) and holding portion (T_H , V_{goff}) of the applied voltage during each frame period of active matrix driving as discussed in the Fujiwara reference. This is because that construction of the terminology of the present claims does not conform to the meaning of the terms "scanning mode" and "hold mode" as established in the present specification. Thus, the present specification discusses "...a hold mode is inserted in a scanning mode of each vertical scanning period T_1 during standby in response to a power save signal PS from the operation mode controller 9" (page 11, lines 13-16).

Accordingly, the "scanning mode" of the present invention basically conforms to the active matrix driving period that the Fujiwara reference attributes to the situation in which the screen is rewritten every frame period. The "hold mode" of the present invention, on the other hand, occurs during the period that the Fujiwara reference refers to as its "memory mode" – "This is equivalent to a case where the holding period T_H continues a long time in the active-matrix driving" Fujiwara, Col. 8, lines 63-65.

Further, the Fujiwara reference provides no suggestion or motivation to one skilled in the art for the use of a charge pump device such as that disclosed by Tasdighi as its power supply. This is because during the Fujiwara "memory" period the display is maintained by the use of the liquid crystal material in conjunction with an actively controlled leakage current. Accordingly, there is no need to maintain a display holding voltage during the "memory" period of Fujiwara that corresponds to the presently claimed "holding" period as would occur by virtue of the switching disclosed in Tasdighi.

COPY

Unfortunately, the confusion arising from the use of the same terminology to mean different things in the present application vis a vis the cited art is problematic. Nevertheless, it must be recognized and understood that terminology is utilized in the present application to refer to concepts that are substantially different from the concepts that the cited art utilizes that same terminology to refer to in the context of its distinctly different disclosure. Once these differences in the meaning that must be accorded to the terms of the present claims from the meaning of the same terms in the relied upon cited references is understood, the fundamental differences between the cited art and the present invention become immediately apparent.

For example, while the Fujiwara reference discloses active matrix scanning periods and alternative memory periods that roughly correspond to the scanning mode and the hold mode claimed above respectively, and while the Tasdighi reference might be said to *generally* suggest the utilization of charge pumps with portable active matrix devices, the fact remains that the operation of the Fujiwara device in its so-called "memory" mode (that roughly corresponds generally to the presently claimed "hold" mode) does not lend itself to being combined with a charge pump power supply in the manner herein claimed. Instead, the link in the art showing the utilization of the charge stored in the pixel electrode 3, an auxiliary capacitor and related elements to maintain the display during the "memory/hold" period and a mode switching means for causing the switch between the claimed scanning and hold operational modes is missing from the art presently of record.

Further, even if the Tasdighi reference were to be held to be sufficient to show the use of a charge pump as a power supply for a portable active matrix device and the switching of output frequency/power level in response to some external signal, the fact still remains that the "memory mode" of the Fujiwara reference is not adapted to utilize the alternative output frequency/power level generated by the charge pump to maintain the display upon the switching from the active matrix scanning mode to the memory/hold mode. Hence, the combination of the Fujiwara reference and the Tasdighi reference fails to result in the present invention and consequently fails to render the present invention unpatentable under 35 USC 103(a).

COPY

Accordingly, Applicants respectfully submit that the Examiner's previous conclusions cannot survive the fact that the terms "scanning mode" and "hold mode" as utilized in the present application have different meanings than the meanings attributed to those terms by the Examiner in the context of the normal active matrix driving sequence described by Fujiwara. Hence, Applicants respectfully submit that the Examiner prior to the interviews referred to above read more into the cited references than they actually taught, disclosed or suggested by virtue of a difference in the meaning of the same terminology as used in the cited art and the present specification, respectively, and further that once this is understood the fundamental differences between the Fujiwara reference and the present disclosure and claims become immediately clear.

Accordingly, in view of the above-mentioned agreement between the Examiner and Applicants' undersigned representative and the foregoing summation of the fundamental differences between the Fujiwara reference and the presently claimed invention, entry of the foregoing Amendment, reconsideration and allowance of claims 1-49 of this application as hereinabove amended in response to this communication are respectfully requested.

Applicant: T. Yanagi et al.
USSN: 09/924,698
Page 21

COPY

Applicants believe that additional fees are not required in connection with the consideration of this response to the currently outstanding Official Action. However, if for any reason a fee is required, a fee paid is inadequate or credit is owed for any excess fee paid, you are hereby authorized and requested to charge and/or credit Deposit Account No. **04-1105**, as necessary, for the correct payment of all fees which may be due in connection with the filing and consideration of this communication.

Respectfully submitted,

Date: February 3, 2006

Reg. No. 27,840

Tel. No. (617) 517-5508

Customer No. 21874

529323

David A. Tucker
SIGNATURE OF PRACTITIONER

David A. Tucker
(type or print name of practitioner)
Attorney for Applicant

Edwards Angell Palmer & Dodge LLP
P. O. Box 55874
P.O. Address

Boston, MA 02205